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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,985	12/08/2003	Kia Silverbrook	ZG116US	1103
24011	7590	03/20/2006	EXAMINER	
SILVERBROOK RESEARCH PTY LTD 393 DARLING STREET BALMAIN, NSW 2041 AUSTRALIA			MITCHELL, JAMES M	
			ART UNIT	PAPER NUMBER
			2813	

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/728,985

Applicant(s)

SILVERBROOK, KIA

Examiner

James M. Mitchell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 13, 14, 18 and 19 is/are rejected.
- 7) ☒ Claim(s) 7-12, 15-17 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This office action is in response to applicant's request for continued examination filed December 9, 2005.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1- 6, 13, 14, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshihara et al. (U.S. 5,824,177) in combination with Cordes et al. (U.S 6,390,439).

4. Yoshihara (Fig. 1,3A-4E) discloses:

(cl.1) a tool used to hold an array of wafer scale protective caps and place the array onto a semiconductor wafer, the tool comprising: a first tool half (4) having surface features (i.e. both flat and recess surfaces) for molding; which have converse shape to a part of shape of caps (Fig. 3D), the surface feature being configured to mold the caps to have said part of said shape (Fig. 3E);

(cl.3) with the first tool cooperating with the second tool (4,6) forming a mold;

(cl. 5) with surface features of the first half have a spacing the corresponds to spacing of wafer (Fig. 1);

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(cl. 18) with first half tool (4) has first portions separate adjacent surface features (.g. horizontal surface between grooves), the second half (6) cooperating and opposite second portion with the caps joined by the thin layer(Fig. 3E).

5. Yoshihara does not disclose the first tool is made from a UV transparent, silicon, semiconductor that has a coefficient of thermal expansion, which is about the same as that of the wafer.

6. Cordes utilizes a tool made from silicon, semiconductor that has a coefficient of thermal expansion, which is about the same as that of the wafer (Col. 5, Lines 55-56).

7. It would have been obvious to one of ordinary skill in the art to form the mold/tool of Yoshihara with silicon, which is transparent to UV about 1000-5000nm in order to eliminate shifting as taught by Cordes (Col. 10, Lines 39-42).<sup>1</sup>

8. With respect to the process limitation of claims 6 and 19, such as “etching” or “lithography,” the claimed product is the same as product of the prior art. “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

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<sup>1</sup> Furthermore use of silicon as a tool/ jig is within the ordinary skill in the art at the time the invention was made as evidenced for example by Kim (U.S. 6,453,096) that is cited as pertinent art. See also In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious); MPEP 2144.07.

***Allowable Subject Matter***

9. Claims 7-12, 15-17 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not disclose or make obvious use of a second tool with groove cooperating with first tool including all the limitations of the independent claim.

***Response to Arguments***

11. Applicant's arguments filed December 9, 2005 with respect to Yoshihara have been fully considered but they are not persuasive.

12. Applicant contends that caps are not retained in the grooves as required in the claim, because Yoshihara use of a vacuum suck the caps in; however this is found unpersuasive. The broad scope of the claim does not preclude use of a vacuum or any other method, since the patentability of a product claim is defined by its product. Since both the claimed invention and prior art disclose the same structures of caps in grooves, the broad scope of the product claim has been met.

***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M. Mitchell whose telephone number is (571) 272-1931. The examiner can normally be reached on M-F 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead Jr. can be reached on (571) 272-1702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jmm  
March 16, 2006

Carl Whitehead Jr.  
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CARL WHITEHEAD, JR.